

1. A scanner comprising:
 - a) a scan bar movable along a subscan axis;
 - b) a first scan-bar homing reference;
 - c) a second scan-bar homing reference spaced apart along the subscan
5 axis from the first scan-bar homing reference; and
 - d) an image placement area disposed between the first and second scan-bar homing references.
2. The scanner of claim 1 wherein the first scan-bar homing reference is a first scan-bar homing and calibration reference and/or the second scan-bar homing
10 reference is a second scan-bar homing and calibration reference.
3. The scanner of claim 2 wherein the each of the calibration references is colored.
4. The scanner of claim 3 wherein the color is selected from a group consisting of white, black, gray and a combination of the foregoing colors.
- 15 5. The scanner of claim 1 wherein the first scan-bar homing reference and the second scan-bar homing reference are each further comprised of a geometric shape.
6. The scanner of claim 5 wherein the first scan-bar homing reference and the second scan-bar homing reference are different from one another.
7. The scanner of claim 5 wherein each of first and second scan-bar homing
20 references are positioned on the scanner by use one of a group consisting of molding, painting, and labeling.
8. The scanner of claim 1 wherein the first scan-bar homing reference and the second scan-bar homing reference are each further comprised of a position switch.
9. The scanner of claim 8 wherein the position switch comprises an optical break
25 sensor.
10. A method of scanning an image or images comprising:
 - a) obtaining a scanner including a subscan axis, including a scan bar having a plurality of sensor elements, including a first scan-bar homing reference and including a second scan-bar homing reference spaced apart along the subscan axis
30 from the first scan-bar homing reference;

b) performing a prescan or an image scan of an image by moving the scan bar along the subscan axis from the first scan-bar homing reference in relation to the image; and

c) performing a prescan or an image scan of the image or of an additional image by moving the scan bar along the subscan axis from the second scan-bar homing reference in relation to the image or the additional image.

11. A method for scanning an image comprising the steps of:

a) obtaining a scanner including a subscan axis, including a scan bar having a plurality of sensor elements, including a first scan-bar homing reference and including a second scan-bar homing reference spaced apart along the subscan axis from the first scan-bar homing reference;

b) performing a plurality of prescans of the image by alternately moving the scan bar in relation to the image along the subscan axis from the first scan-bar homing reference to the second scan-bar homing reference for each odd numbered prescan of the plurality of prescans and from the second scan-bar homing reference to the first scan-bar homing reference for each even numbered prescan of the plurality of prescans; and

c) after step b), image scanning the image by moving the scan bar in relation to the image along the subscan axis.

12. The method of claim 11 also including the step of establishing a position reference for the scan bar each time before the scan bar is moved from each of the first and second scan-bar homing references.

13. The method of claim 12 wherein the first scan-bar homing reference is a first scan-bar homing and sensor-element calibration reference, and also including, before step b), the step of calibrating the plurality of sensor elements from a scan of the first scan-bar homing reference by the scan bar.

14. The method of claim 13 wherein the step of calibrating comprises using a calibration reference selected from a group consisting of a white calibration reference, a black calibration reference, a gray calibration reference and a calibration reference that is a combination of the foregoing calibration references.

15. The method of claim 11 also including after step c), the step of moving the scan bar along the subscan axis to the closer of the first and second scan-bar homing references.

16. The method of claim 11 wherein the scanner is a component of a printing system.

17. A method for scanning an image comprising the steps of:

a) obtaining a scanner including a subscan axis, including a scan bar having a plurality of sensor elements, including a first scan-bar homing reference and including a second scan-bar homing reference spaced apart along the subscan axis from the first scan-bar homing reference;

b) disposing the scan bar about the first scan-bar homing reference;

c) after step b), performing a first prescan of the image by moving the scan bar from the first scan-bar homing reference to the second scan-bar homing reference in relation to the image along the subscan axis; and

d) after step c), performing a second prescan of the image by moving the scan bar from the second scan-bar homing reference to the first scan-bar homing reference in relation to the image along the subscan axis.

18. The method of claim 17 also including the step of establishing a position reference for the scan bar each time before the scan bar is moved from each of the first and second scan-bar homing references.

19. The method of claim 18 wherein the first scan-bar homing reference is a first scan-bar homing and sensor-element-calibration reference, and also including, between steps b) and c), the step of calibrating the plurality of sensor elements from a scan of the first scan-bar homing reference by the scan bar.

20. The method of claim 19 wherein the step of calibrating comprises using a calibration reference selected from a group consisting of a white calibration reference, a black calibration reference, a gray calibration reference and a calibration reference that is a combination of the foregoing calibration references.

21. The method of claim 17 wherein the scanner is a component of a printing system.

22. A method for scanning images comprising the steps of:

- a) obtaining a scanner including a subscan axis, including a scan bar having a plurality of sensor elements, including a first scan-bar homing reference and including a second scan-bar homing reference spaced apart along the subscan axis from the first scan-bar homing reference;
- 5 b) disposing the scan bar about the first scan-bar homing reference;
- c) prescanning a first image by moving the scan bar from the first scan-bar homing reference to the second scan-bar homing reference in relation to the image along the subscan axis;
- d) after step c), image scanning the first image by moving the scan bar
10 from the second scan-bar homing reference toward the first scan-bar homing reference in relation to the image along the subscan axis;
- e) after step d), moving the scan bar to the second scan-bar homing reference, wherein the second scan-bar homing reference is the closer of the first and second scan-bar homing references to the scan bar at the completion of step d);
- 15 f) after step e), prescanning a second image, which is different from the first image, by moving the scan bar from the second scan-bar homing reference to the first scan-bar homing reference in relation to the image along the subscan axis; and
- g) after step f), image scanning the second image by moving the scan bar from the first scan-bar homing reference toward the second scan-bar homing
20 reference in relation to the image along the subscan axis.

23. The method of claim 22 also including the step of establishing a position reference for the scan bar each time before the scan bar is moved from each of the first and second scan-bar homing references.

24. The method of claim 23 wherein the first scan-bar homing reference is a first
25 scan-bar homing and sensor-element-calibration reference, and also including, between steps b) and c), the step of calibrating the plurality of sensor elements from a scan of the first scan-bar homing reference by the scan bar.

25. The method of claim 24 wherein the second scan-bar homing reference is a
30 second scan-bar homing and sensor-element-calibration reference, and also including, between steps e) and f), the step of calibrating the plurality of sensor elements from a scan of the second scan-bar homing reference by the scan bar.

26. The method of claim 25 wherein the steps of calibrating from a scan the first and second scan-bar homing references further comprises using a calibration

reference selected from a group consisting of a white calibration reference, a black calibration reference, a gray calibration reference and a calibration reference that is a combination of the foregoing calibration references.

27. The method of claim 22 wherein the scanner is a component of a printing system.

28. A method for scanning images comprising the steps of:

- a) obtaining a scanner including a subscan axis, including a scan bar having a plurality of sensor elements, including a first scan-bar homing reference and including a second scan-bar homing reference spaced apart along the subscan axis from the first scan-bar homing reference;
- b) establishing a position reference for the scan bar including disposing the scan bar about the first scan-bar homing reference;
- c) after step b), image scanning the first image by moving the scan bar from the first scan-bar homing reference toward the second scan-bar homing reference in relation to the image along the subscan axis;
- d) after step c), establishing an updated position reference for the scan bar including disposing the scan bar about the second scan-bar homing reference; and
- e) after step d), image scanning a second image, which is different from the first image, by moving the scan bar from the second scan-bar homing reference toward the first scan-bar homing reference in relation to the image along the subscan axis.

29. The method of claim 28 wherein the first scan-bar homing reference is a first scan-bar homing and sensor-element-calibration reference and/or the second scan-bar homing reference is a second scan-bar homing and sensor-element-calibration reference, and also including, between steps b) and c), the step of calibrating the plurality of sensor elements from a scan of the first scan-bar homing reference by the scan bar and/or, between steps d) and e), the step of calibrating the plurality of sensor elements from a scan of the second scan-bar homing reference by the scan bar.

30. The method of claim 29 wherein the steps of calibrating from a scan the first and second scan-bar homing references further comprises using a calibration reference selected from a group consisting of a white calibration reference, a black calibration reference, a gray calibration reference and a calibration reference that is a combination of the foregoing calibration references.

31. A method for scanning and printing an image comprising the steps of:
- a) obtaining a scanner including a subscan axis, including a scan bar having a plurality of sensor elements, including a first scan-bar homing reference and including a second scan-bar homing reference spaced apart along the subscan axis
5 from the first scan-bar homing reference;
 - b) establishing a position reference for the scan bar including disposing the scan bar about the first scan-bar homing reference;
 - c) after step b), performing a first image scan of the image by moving the scan bar from the first scan-bar homing reference toward the second scan-bar homing
10 reference in relation to the image along the subscan axis;
 - d) after step c), printing a copy of the first image scan of the image;
 - e) after step d), establishing an updated position reference for the scan bar including disposing the scan bar about the second scan-bar homing reference;
 - f) after step e), performing a second image scan of the image by moving
15 the scan bar from the second scan-bar homing reference toward the first scan-bar homing reference in relation to the image along the subscan axis; and
 - g) after step f), printing a copy of the second image scan of the image.

32. The method of claim 30 wherein the first scan-bar homing reference is a first scan-bar homing and sensor-element-calibration reference, and also including,
20 between steps b) and c), the step of calibrating the plurality of sensor elements from a scan of the first scan-bar homing reference by the scan bar.

33. The method of claim 32 wherein the step of calibrating from a scan the first scan-bar homing reference further comprises using a calibration reference selected from a group consisting of a white calibration reference, a black calibration reference,
25 a gray calibration reference and a calibration reference that is a combination of the foregoing calibration references.